REMARKS

Reconsideration and allowance of this application are respectfully requested in light of the above amendments and the following remarks.

The Applicant wishes to thank the examiners for the courtesy extended to a representative of the Applicant during a personal interview conducted on December 23, 2008. The participants were Examiners Paras Shah and Patrick Edouard and David Ward. During the interview, the Applicant's representative proposed claim amendments for traversing the applied indefiniteness rejections and presented remarks, the substance of which are provided below, for distinguishing the proposed claims from the applied references. No agreement was reached regarding amendments that would overcome the indefiniteness rejections. The Examiners suggested that further amendments be made in the written amendment to be filed. Such further revisions have been made in the above revised claims relative to the proposed amendments presented at the interview. It is submitted that the above amendments overcome the pending 35 USC 112, second paragraph, rejections.

Claims 43, 48, 50, 55, and 56 have been amended above. Support for these amendments is provided, for example, in the specification on page 78, lines 4-15, and page 79, lines 6-12. (References herein to the specification and drawings are for illustrative purposes only and are not intended to limit the scope of the invention to the referenced embodiments.)

The amendments have been drafted to overcome the applied indefiniteness rejections and were not presented earlier due to the unforeseeability of the remarks presented in the Final Rejection.

Claims 43-45, 48, 49, 55, and 56 were rejected, under 35 USC §103(a), as being unpatentable over Jin et al. (JP 08-263096) in view of Pan et al. (US 6,092,041). Claims 46, 47, and 50-52 were rejected, under 35 USC § 103(a), as being unpatentable over Jin in view of Pan and Kono (JP 08-046517). Claims 53 and 54 were rejected, under 35 USC §103(a), as being unpatentable over Ebara et al. (JP 2000-322097) in view of Jin and Pan. To the extent these rejections may be deemed applicable to the amended claims 43-56, the Applicant respectfully traverses based on the points set forth below.

Claim 43 has been amended to clarify that the recited error spectrum is calculated by flattening and attenuating a decoded spectrum using an exponent and a multiplicand. That is, the claimed invention: (1) takes advantage of the fact that, due to weighting, the influence of the spectral envelope of a decoded spectrum remains in an error spectrum, and (2) estimates, accurately, the error spectrum from a decoded spectrum by subjecting the decoded spectrum to flattening and attenuation. By estimating an error spectrum from a decoded spectrum, the claimed invention provides the following advantages.

A decoded spectrum is subjected to flattening and attenuation in the decoding apparatus in the same way as in the coding apparatus, so that that the same estimated error spectrum as in the coding apparatus can be generated, accurately, without additional information. A decoded spectrum is calculated from a decoded signal generated in a decoding section. This decoding section is provided in both the coding apparatus and the decoding apparatus, so that it is possible to perform decoding processing using common first coding information and generate decoded signals. Consequently, it is possible to produce identical decoded signals in the coding apparatus

and the decoding apparatus. Furthermore, by applying flattening and attenuation to a decoded spectrum, an error spectrum can be estimated in an accurate fashion.

By contrast to the Applicant's claimed subject matter, Jin discloses a layered coding method applying a coding scheme, using a weighting filter, to at least one layer. Jin does not disclose the Applicants' claimed subject matter of estimating an error spectrum from a decoded spectrum. More specifically, as acknowledged in the Final Rejection (see Final Rejection page 5, second paragraph), Jin does not disclose the Applicant's claimed subject matter of estimating an error spectrum by subjecting a decoded spectrum to scale adjustment and normalization (i.e., flattening and attenuation).

To overcome this deficiency, the Final Rejection proposes that Pan discloses, in column 4, lines 44-55, estimating an error spectrum by subjecting a decoded spectrum to scale adjustment and normalization (see Final Rejection page 5, last paragraph). However, Pan discloses, in the cited material, comparing low-band frequency coefficients against low-band masking thresholds (see Pan col. 4, lines 44-48). Values of low-band frequency coefficients below the corresponding masking threshold are replaced by zero without audio distortion (see col. 4, lines 49-55).

Pan's disclosure of replacing particular coefficient values with zero is not the same as, or similar to, the Applicants' claimed subject matter of estimating an error spectrum by subjecting a decoded spectrum to flattening and attenuation.

Accordingly, the Applicant respectfully submits that the teachings of Jin and Pan, considered individually or in combination, do not render obvious the subject matter now defined by claim 43. Independent claims 48, 55, and 56 now similarly recite the above-mentioned

subject matter distinguishing apparatus claim 43 from the applied references, but claims 55 and 56 do so with respect to methods. Accordingly, the rejections applied to claims 46, 47, and 50-54 are obviated and allowance of claims 43, 48, 55, and 56 and all claims dependent therefrom is warranted.

To promote a better understanding of Pan's disclosure and to make the patentable distinctions of the Applicant's claims over the applied art more readily apparent, the Applicant submits the following further remarks.

Pan discloses a transformative coding method involving comparing an error spectrum against a masking threshold and not encoding frequency coefficients below the masking threshold (see Pan col. 4, lines 44-55). The error spectrum used in this case refers to diffband frequency coefficients (i.e., input signal in unit 206, "Diffband frequency coefficients"). These diffband frequency coefficients are the signal obtained by performing a frequency analysis of the signal remaining after a decoded signal is subtracted from an input signal (see Pan's Fig. 1, in which the remaining signal found in subtractor 110 is subjected to a frequency analysis and produces signal 116, which is "Diffband frequency coefficients"). The error spectrum used in Pan is obtained by a frequency analysis after a decoded signal is subtracted from an input signal.

In view of the above, it is submitted that this application is in condition for allowance, and a notice to that effect is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

Date: February 17, 2009
JEL/DWW/att

James E. Ledbetter
Registration No. 28,732

Attorney Docket No. 009289-04162
Dickinson Wright PLLC
1875 Eye Street, NW, Suite 1200
Washington, DC 20006
Telephone: (202) 659-6966
Facsimile: (202) 659-1559